

CLAIMS

We claim:

1. A genetically altered animal defective in Caspase-9 expression.
2. The genetically altered animal according to claim 1, wherein said animal is a mouse.
3. A method of producing a genetically altered animal defective in Caspase-9 expression comprising the steps of:
 - a. providing an isolated DNA sequence comprising a genomic DNA sequence encoding a Caspase-9 that does not contain the pentapeptide motif QACXG, wherein "X" is arginine or glycine;
 - b. introducing said DNA sequence into an embryonic stem cell under conditions that cause said DNA sequence to stably integrate into a chromosome of said stem cell;
 - c. incorporating said stem cell into a blastocyst of said animal to produce a chimeric animal;
 - d. breeding said chimeric animal to an animal that expresses functional Caspase-9 to produce an animal heterozygous for functional Caspase-9;
 - e. interbreeding said animals heterozygous for functional Caspase-9 expression to produce said animal deficient in Caspase-9 expression.
4. The method according to claim 3, wherein said DNA sequence additionally comprises a selectable

marker gene.

5. The method according to claim 4, wherein said marker gene is a neo gene.

6. A method of treating or preventing developmental abnormalities, nerve cell death, smooth or cardiac muscle degeneration or cell death associated with viral infection in an animal comprising the step of administering to said animal a composition comprising a molecule which inhibits either the expression of Caspase-9 or the activity of Caspase-9.

7. The method according to claim 6, wherein said molecule is selected a monoclonal or polyclonal antibody specific for Caspase-9, an oligonucleotide that specifically hybridizes to Caspase-9 DNA so as to prevent transcription of functional Caspase-9 mRNA, an oligonucleotide that specifically hybridizes to Caspase-9 mRNA so as to prevent expression of Caspase-9 or a ribozyme that specifically cleave Caspase-9 mRNA.